

The approximate Ramsey property for classes of finite dimensional normed spaces (joint work with D. Bartošová, M. Lupini and B. Mbombo, and with V. Ferenczi, B. Mbombo and S. Todorćevic)

We will discuss the approximate Ramsey property (ARP) of several classes of finite dimensional normed spaces, including

1. The class of all finite dimensional normed spaces;
2. the class of all finite dimensional subspaces of $L_p[0, 1]$;
3. the class $\{\ell_p^n\}_{n \in \mathbb{N}}$;
4. the class of polyhedral spaces.

Our proof of the (ARP) of $\{\ell_\infty^n\}_{n \in \mathbb{N}}$ uses the Dual Ramsey Theorem by Graham and Rothschild, while the (ARP) of $\{\ell_p^n\}_{n \in \mathbb{N}}$, $p \neq 2, \infty$ can be proved by the version of the Dual Ramsey Theorem for equipartitions (open) or even its approximate version (true, with a non-combinatorial proof).